

ABSTRACT

A single lens or optical system is used to image two different optical bands, for example visible and infrared, with the same possible adjustments in zoom and/or focus. A dual band singlet is formed of a first, larger, optical element, suitable for operating on light of a first optical band, with an aperture cut out of it. A smaller element, suitable for operating on light of a second optical band, is secured in, or on either side of, the aperture cut through the larger optical element, thus forming a dual band singlet that can operate on two different wavelength bands. Combinations of dual band lenses, lens elements, and lenses with cut-out apertures are used to form dual-band optical systems, including systems with dual-band focus and zoom.